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November 27, 2007

Hon. Jaclyn A. Brilling
Secretary
NYS Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

Re: Case 07-M-0548 – Energy Efficiency Portfolio Standard

Dear Secretary Brilling:

Enclosed please find an original and five copies of Revised Proposal for Energy Efficiency Design and Delivery and Reply Comments of the Staff of the Department of Public Service in the above-captioned proceeding. We plan to submit a supplemental filing with benefit/cost information as a separate document later this week. The additional time is needed to complete our review of program cost and savings information we recently received from current program administrators.

The filing will be served on the parties electronically.

Respectfully submitted,

Saul A. Rigberg
Assistant Counsel

Enclosure

cc: ALJ Eleanor Stein
ALJ Rudy Stegemoeller
Paul Agresta, Esq.
Active Parties

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 07-M-0548 – Proceeding on Motion of the Commission Regarding
An Energy Efficiency Portfolio Standard.

REVISED PROPOSAL FOR ENERGY EFFICIENCY DESIGN AND DELIVERY AND REPLY COMMENTS OF THE STAFF OF THE DEPARTMENT OF PUBLIC SERVICE

EPS STAFF TEAM

Dated: November 26, 2007
Albany, New York

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 07-M-0548 – Proceeding on Motion of the Commission Regarding An Energy Efficiency Portfolio Standard

REVISED PROPOSAL FOR ENERGY EFFICIENCY DESIGN AND DELIVERY AND REPLY COMMENTS OF THE STAFF OF THE DEPARTMENT OF PUBLIC SERVICE

INTRODUCTION

In its Order Instituting Proceeding in the Energy Efficiency Portfolio Standards (EPS) Proceeding (Instituting Order), the Commission found "that realizing the State's energy efficiency potential and reducing New York's electricity usage 15% from expected levels by 2015 are in the public interest."[1] The Commission explained (id.):

> The benefits of energy efficiency include forestalling the building of new generation, reducing use of finite fossil fuels, reducing customers' energy bills, developing independent energy sources for New York State to reduce energy imports, and mitigating the environmental impacts of burning fossil fuel for energy, including greenhouse gas emissions.[2]

On August 28, 2007, Staff of the Department of Public Service (Staff) submitted a Preliminary Proposal setting forth a framework for implementing the EPS goal of a 15% reduction in electricity usage in New York from the projected level for 2015, along with a comparably aggressive usage reduction target for natural gas. Since the EPS targets are extremely aggressive, we believe it is imperative that substantial program efforts begin in 2008 to jumpstart the process while deliberations on the long-term energy efficiency portfolio process continue. We also stressed the significant role of activities beyond the Commission's jurisdiction in achieving EPS goals, such as enhanced building codes and appliance and equipment standards. To fully utilize these critical opportunities, we saw a

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[1] Case 07-M-0548, supra (issued May 16, 2007), p. 2.

[2] In this latter regard, the Order stated (at 3-4): "Studies estimate that the power generation sector contributes approximately 25% of the State's total greenhouse gas emissions."

need for greater involvement by and coordination among state agencies and authorities that participate in various aspects of energy efficiency delivery so that a wide range of energy efficiency measures and programs could be considered and synergies explored. In the last two months Staff has had the pleasure of working with colleagues at several of these agencies and authorities to determine how best to structure energy efficiency programs to overcome existing barriers. In addition, the Governor's Office has launched a Clean Energy Collaborative for the purpose of enhancing energy efficiency efforts among government authorities and agencies.

In its Preliminary Report, Staff identified 16 "fast track" programs with proven records of achieving energy usage reductions that could either be expanded or introduced quickly to begin obtaining enhanced results in mid-2008, while a longer-term energy efficiency planning process is established. On September 14, 2007, Administrative Law Judge Eleanor Stein invited all parties in the case to submit comments on the Preliminary Proposal, concentrating these comments on the fast track programs.

Staff has reviewed the almost two dozen filed comments. With this information and additional research, Staff has selected a subset of the originally-identified fast track programs that we believe will meet the original intention of offering a wide range of programs that will produce a high level of benefits from the funds expended.

In pursuing a fast track approach Staff has been cognizant of the need to retain flexibility and ensure that decision making for the long-term energy efficiency planning process will not be hampered because of actions taken to implement the fast track programs. Extending the fast track programs identified here through 2015, moreover, is not expected to produce sufficient energy savings to meet the target goals for electricity and natural gas savings or to address opportunities comprehensively and equitably among customer sectors. The long-term energy efficiency planning process will need to look at energy savings broadly, including evaluating the success and reach of existing programs and exploring possibilities for totally new approaches.

The goals for the fast track programs are to accelerate development of energy efficiency resources within the state, to make meaningful progress toward the 2015 goals,

to build interest among the public in energy efficiency, to continue to develop the infrastructure needed to deliver expanded energy efficiency services, and to increase the level of energy savings that can be obtained each year while the long-term energy efficiency framework is being developed. Existing energy efficiency programs that have not been designated as fast track programs will continue and be reevaluated as part of the long-term planning process. Staff believes that if the ambitious EPS goals are to be achieved, the long-term energy efficiency portfolio will need to emulate the best practice programs from around the country and introduce innovative new programs.

These reply comments are organized as follows: First, we summarize our findings and recommendations. Next, we identify the 10 programs Staff is recommending for fast track implementation, along with their current 2007 budgets, where applicable, and recommended increases in budgets for 2008 and 2009. We then discuss a series of issues pertinent to implementation of the fast track programs. Two attachments follow. The first is a detailed discussion of the recommended programs, including the rationale for our choices. The second attachment shows updated estimates of savings achievable from building code enhancements.

SUMMARY

The major programs pertinent to the fast track component of the EPS are the New York Energy Smart Programs, administered by NYSERDA on behalf of the Commission and in consultation with Staff, which are currently funded by New York ratepayers through the System Benefits Charge (SBC) at $175 million annually, and DHCR's Weatherization Assistance Program (WAP), which is funded at approximately $55 million annually by the United States Department of Energy and the federal Low Income Home Energy Assistance Program (LIHEAP). Staff's recommended fast track program funding increases add $118.5 million for 2008[3] and $229 million for 2009. In addition, we would assign about $10 million for customer outreach and education; precise details and costs should be the subject of a collaborative discussion among the parties. Staff also recommends allocating $2.5 million for use by NYSERDA and the Department of State to develop improved building codes and enhanced appliance standards. Bill impacts of these recommendations are on the order of between one-half and one and one-half percent, depending on such factors as customer class.

The ten programs recommended by Staff for fast track implementation include: (1) several programs administered by NYSERDA; (2) WAP; (3) new programs that are appropriate for the utilities to administer; and (4) a program that could perhaps be partially administered in part by the City of New York. NYPA, LIPA, and the Dormitory Authority of the State of New York (DASNY) have expressed their willingness to coordinate their efforts with the EPS programs to help achieve the overall statewide goals. Third party providers will play a key role in program delivery, and a wide variety of interested parties will play be involved in advertising the availability of program offerings and conducting consumer education and awareness activities. As noted, Staff is proposing to increase funding over current levels by $117 million in 2008

[3] With procedural and other constraints, Staff expects that funding will not begin to accrue, and programs to start, until July 1, 2008. The 2008 budgets, therefore, are based on a six-month period.

and $239 million in 2009. We estimate that in 2008 there would be about $69 million in incremental expenditures upstate and approximately $48 million expended downstate in Con Edison and KeySpan's service territories. In 2009 the comparable number would be $133 million upstate and $106 million downstate. Staff projects that over the 18-month period (July 2008-December 2009) these programs will collectively save 1428 gigawatt hours (GWh) of electricity and 3156 million British thermal units (MMBtu) of natural gas. Demand savings are estimated to be a total 230 MW.

Staff recommends that these efforts be funded through a new surcharge on customers' bills. A thorough examination of allocation principles and cross-class subsidy issues[4] must await the larger phase of this proceeding; for the purpose of implementing the fast track quickly, Staff proposes that the customers that are currently exempted from paying the SBC and RPS surcharges, as well as interruptible gas customers, should be exempt from paying the EPS Surcharge. Based on our assessment of the respective programs, the EPS Surcharge would be set to recover approximately $59.0 million over the 18-month period from gas customers and $306.0 million from electric customers over the same period (not including the costs for development of enhanced energy codes and appliance standards, consumer education, or for program evaluation). The surcharge amounts should be trued up at the end of the 18 month period based on actual experience. Memoranda of Understanding (MOU) would need to be executed between each utility and appropriate state entities regarding the transfer of surcharge monies.

For purposes of the fast track portfolio of programs, Staff recommends a pilot evaluation program that would require that each program administrator submit a compliance filing that includes a comprehensive evaluation and reporting plan. It is recommended that up to five percent of a program's budget be reserved for evaluation activities. Staff also proposes the establishment of an evaluation and reporting collaborative especially created to work with fast track programs, to oversee the evaluation process.

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[4] Id., p.15.

Staff understands the utilities' interest in performance-based incentive mechanisms and recognizes that developing an effective incentive program is a complex undertaking. Accordingly, on a pilot basis, Staff proposes an incentive mechanism for fast track programs implemented by the investor owned utilities. Highlights of this program include a system that is simple to administer and is designed to focus on encouraging superior performance.

The implementation of fast track programs offers the opportunity to increase New York State customers' awareness of energy efficiency opportunities available to them as well as to inform the public about the EPS target goals and how their actions can contribute to achieving these goals. Rather than wait until the conclusion of a long-term planning phase to increase outreach to customers, Staff recommends that the process of developing a statewide advertising campaign begin within 30 days of a Commission order approving a portfolio of fast track programs.

Based upon our analysis, and in consultation with NYSERDA and DHCR, we recommend increasing significantly the funding levels of both EmPower New York, NYSERDA's low income weatherization program, and DHCR's Weatherization Assistance Program (WAP) to help satisfy the strong need and demand for these services.[5] This recommendation, we believe, is appropriately responsive to the Instituting Order's urging that EPS program design should include "expansion of existing low income weatherization programs to create a more comprehensive low income program"[6] and to the support for such programs among many of the parties. Since weatherization activities tend to be labor intensive, these programs also address another requirement set forth in the Instituting Order: "An EPS should be designed ultimately to reduce customer bills, stimulate State economic development, and create jobs for New Yorkers."[7]

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[5] The percentage of the recommended funding increase, however, is less than the percentage funding increases recommended for some other programs.

[6] Case 07-M-0548, supra (issued May 16, 2007), pp. 15-16.

[7] Id., p. 6.

Success of the overall EPS effort requires establishing an adequate workforce of trained energy efficiency practitioners to serve all parts of the State. This large undertaking will require lead time to develop curriculum, arrange for training, develop capabilities within colleges to deliver training programs, and arrange for staffing to offer training. To meet these ambitious goals, planning for enhanced training capability needs to start now. Staff recommends that collaborative discussions among partners in this effort (e.g., Staff, NYSERDA, colleges, trade associations, utilities, ESCOs, etc.) should begin within 30 days of a Commission decision on the fast track programs.

One of the major barriers that prevent full utilization of energy efficiency programs is customers' inability to raise the up-front costs needed to implement major energy efficiency improvements. For the fast track programs identified here, we recommend use of currently available funding mechanisms, such as buy downs of interest rates, to the extent feasible. We are also encouraged by the "on bill" proposal submitted by DASNY. We believe that the use of innovative payment approaches should continue to be explored.

Studying the cost effectiveness of reducing losses on the transmission and distribution systems, which run in the 6-8 percent range, is another activity that can occur immediately.[8] In fact, the electric utilities are to be commended for already beginning the process of developing a common approach to the study protocols.

Staff agrees with the critical importance of developing consistent standards on data formats, common methods for data communications, protocols for data accessibility, and accuracy standards for hardware and firmware. A Notice Seeking Comment on proposed standards was issued recently in the AMI Proceeding.[9] We urge interested parties to submit comments in that proceeding, which are due on December 10, 2007.

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[8] The Commission directed the ALJ and the parties to '[c]onsider and prioritize…generation, distribution and transmission efficiencies." Case 07-M-0548, supra (issued May 16, 2007), p. 7.

[9] Cases 00-E-0165 and 02-M-0514, In the Matter of Competitive Metering.

Some parties mentioned the importance of demand response programs[10] as part of the EPS effort. Staff agrees and defers to the efforts of Working Group 4 in the proceeding, which has spent several months focusing on these concerns.

In Staff's Preliminary Proposal, we included tables that showed the potential savings available from upgrades to building energy codes and enhanced appliance efficiency standards. These tables have been updated for this submission. We believe that significant savings can be achieved through strict enforcement of building code requirements. The impacts from building codes and appliance standards are so significant, and the lead times needed to effect and implement revised requirements are so long, that we recommend that work in this area begin immediately and not wait for completion of a long-term energy efficiency development process. We believe that DPS Staff, working with NYSERDA, the Department of State, and other interested parties, should meet within 60 days of the Commission's order on fast track programs to develop strategies for gaining the maximum contributions from codes and standards that can be obtained between now and the end of 2015.

[10] Demand response programs provide benefits to customers that agree to curtail loads during peak usage periods.

PROGRAMS SELECTED FOR THE FAST TRACK PORTFOLIO

In its Preliminary Report, Staff identified 16 fast track programs with proven records of achieving energy usage reductions that could either be expanded or introduced quickly to begin obtaining enhanced results in mid-2008, while a longer-term energy efficiency planning process is established. Staff chose a portfolio of programs that include offerings for all customer classes involving both gas and electric programs that could be delivered by a variety of entities, including NYSERDA, DHCR, electric and gas utilities, City of New York, and energy service companies. NYPA, LIPA, and municipalities could provide analogous programs coordinated into a statewide delivery framework.

After reviewing comments from parties in the EPS case, doing further research, and evaluating benefits and costs associated with the various programs, we have narrowed the initial list to 10 programs that can be implemented quickly and have demonstrated potential to produce significant energy savings. Like the selections we described in August, this portfolio of programs includes opportunities for all customer classes to participate, contains both gas and electric programs, and offers opportunities for utilities, third party providers, and municipalities to become involved in program delivery.

New York has the advantage of well established programs with a national reputation for excellence that can provide a strong foundation for expansion. Several of the programs that Staff has selected are currently oversubscribed and the primary change will be to advertise more widely and adjust program delivery to take into account the fact that more funding is now available.

PROGRAMS RECOMMENDED FOR THE FAST TRACK PORTFOLIO[11]

Program Name	Current SBC $	2008 EPS $	2009 EPS $
Residential New Construction – Single and Multi-Family Housing (electric/gas)	$5.2 million	$4.9 million	$9.5 million
Statewide Residential Lighting Program (electric)[12]	$1.0 million	$6.8 million	$9.7 million
Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment (gas/electric)	Not available, as this is a new program	$8.6 million	$17.3 million
Home Performance with ENERGY STAR® (electric/gas)	$7.9 million	$8.4 million	$15.6 million
Low Income Residential Energy Efficiency and Weatherization (electric/gas) a. EmPower New York	$11.1 million	$5.1 million	$10.2 million
Low Income Residential Energy Efficiency and Weatherization (electric/gas) b. Weatherization Assistance Program	Current DHCR Budget = $55.4 million	$13.7 million	$27.5 million
Multifamily Building Home Performance with an Emphasis on New York City (electric/gas)	$23 million	$10.2 million	$10.2 million
New Commercial Buildings – Whole Building Design (electric/gas)	$11.9 million	$10.4 million	$26.1 million
Small Business Direct Installation Program (electric/gas)	New program, not applicable	$11.1 million	$22.1 million
Existing Commercial Buildings with Commercial Focus (electric/gas)	$21.9 million	$23.5 million	$62.3 million
Flex Tech Including Industrial Process Improvements (electric/gas)	$6.6 million	$14.4 million	$28.8 million

[11] Dollar figures include program administration and evaluation fees.

[12] Estimated residential lighting portion of the current annual SBC program budget.

ISSUES PERTINENT TO FAST TRACK PROGRAMS

1. EPS Cost Allocation

In its comments, Multiple Intervenors presented a detailed analysis of cost allocation issues. It asserted that EPS surcharges should not be imposed on billing for customers that have reduced energy costs due to NYPA low-cost power allocations and flex-rate contracts. Multiple Intervenors stated that EPS costs must be recovered in a manner that promotes interregional, inter-class, and intra-class equity. These and related issues deserve more attention, but in order to get the fast track programs up and running quickly, Staff recommends continuing existing customer exemptions from SBC payments and using the current SBC method for determining the level of EPS funding contribution from each utility.

To allocate fast track program electric costs among utilities, the table shown as Appendix A in the December 21, 2005 Order in Case 05-M-0090[13] should be used as a model to proportionally reflect the annual EPS collection amount needed from each utility to support the programs approved by the Commission. This approach will allow enhance electric energy efficiency programs to be put in place quickly, Staff recommends that the longer-term EPS planning process address cost allocation in detail.

For gas energy efficiency programs, there has not been a separate public benefit program funding source in the past like the SBC for electricity. Staff recommends that the Commission should establish a procedure to begin collecting revenues from natural gas customers to fund gas efficiency programs. In the Preliminary Proposal, Staff recommended exempting customers of gas utilities that take interruptible sales service and/or interruptible transportation service from mandatory participation in energy efficiency programs, since many of these customers are dual-fueled (natural gas and oil). Staff continues to support that recommendation for the fast track programs.

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[13] In the Matter of the System Benefits Charge, Order Continuing the System Benefits Charge (SBC) and the SBC-Funded Public Benefit Programs" (issued December 21, 2005).

For the Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment program, which is expected to be offered by utilities that do not currently have equipment rebate programs, Staff has initially allocated the cost to residential gas ratepayers for whom the program is targeted. However, it is possible that some smaller commercial and industrial customers may take advantage of the program. If a gas utility finds this to be the case, then it should allocate that portion of program costs for recovery from commercial customers. This adjustment can be done as part of the reconciliation process for these program costs.

Staff recommends that SBC-exempt customers (both gas and electric) that would like to participate in the fast track programs should be allowed (and encouraged) to do so provided that the customer agrees to contribute to energy efficiency funding (SBC plus incremental EPS charges) through 2015.

We further recommend that, in the short term, the allocations of EPS gas funding across utilities be based on annual gas revenues using a methodology similar to that used for electric energy efficiency programs. Allocation levels should be reviewed as part of the long-term energy efficiency planning process to see if it should be refined based on experience with the new gas energy efficiency programs.

2. Cost Recovery and Rate Impacts

Once budgets have been established for the fast track programs for each utility, the next step is to determine how those budgeted dollars will be collected from affected ratepayers. Staff reviewed various options for recovering the costs associated with the fast track programs. The options include:

- Existing monthly adjustment mechanisms (GAC, FAC, etc.) - With this approach, program costs would be recovered using existing mechanisms. This could be done in two ways: 1) through a fixed surcharge or 2) through a "pay as you go" mechanism. Using a surcharge would mean establishing a set amount to add to the existing adjustment mechanism every month to recover energy efficiency program costs. This would probably entail a true-up at some point, perhaps annually. Pay as you go means that as utilities incur costs they would add them to the balance in the account and the monthly amount on the bill would vary. In this way, entities like NYSERDA and DHCR could bill utilities for incremental program costs.

- New EPS Surcharge – This would be similar to how RPS and SBC collections are handled. Currently, RPS and SBC are identified on electric customers' bills and an EPS charge could be added there, while a new line item may need to be added for gas customers. The surcharge could be established based on program targets and then trued up annually for actual expenses.

- Add to SBC – Since the SBC collection mechanism already exists, this would involve updating agreements between DPS and NYSERDA and directing utilities to start collecting the higher amounts. Gas utilities do not have the SBC, but the SBC could be added to their bills by Commission order.

- Deferrals – Utilities could be directed to spend money on efficiency programs and defer the amounts spent for later recovery.

- Spend Ahead – For existing NYSERDA programs, we could allow NYSERDA to accelerate spending of uncommitted funds already approved in SBC3. Since the money has been scheduled for collection, no lag time associated with establishing a new mechanism would be encountered.

- Tapping into customer benefit funds – For any utility that has accumulated funds owed to customers, such as the proceeds from selling utility plant, those funds could be used to pay for efficiency programs to benefit customers.

Staff Recommendation:

Staff recommends that a new EPS surcharge be instituted at applicable gas and electric utilities. The surcharge amount will be based on the budgets developed as part of this proceeding for each utility service territory and spread over the expected commodity sales for the year. On electric bills, this charge should be a combined line item with the System Benefits Charge and the Renewable Portfolio Standards charge. There should be an annual true-up to ensure that any unspent funds are returned to ratepayers.[14]

[14] To the extent such funds are available it may be possible to use customer benefit funds to pay for a portion of efficiency program costs. This is an issue that should be examined for the longer term.

Funding of the proposed portfolio of fast track programs would entail some rate increases for both gas and electric customers of the investor-owned utilities. Staff has evaluated those impacts on an aggregate basis.

Bill Impacts for Gas Customers

Our analysis assumes collection from gas customers for two fast track programs: the gas portion of the Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment program and the incremental WAP costs. The incremental budgets for these two programs for the 18-month fast track period are as follows:

	2008	2009
Appliances	$5,790,000	$11,580,000
WAP	$13,750,000	$27,500,000
Total	$19,540,000	$39,080,000

Second, these costs were allocated only to residential customers. All of the revenues for 2006 were totaled (the most recent year available) and an upstate/downstate split was calculated (KEDNY/KEDLI and Con Edison downstate, everyone else upstate). The costs above were then allocated based on the resulting percentages (57.8% downstate, 42.2% upstate). To get the bill impacts, the program budgets for upstate/downstate were divided by the total revenues upstate/downstate. This results in an increase in total bills of about 0.4% for 2008 and 0.8% for 2009.

Natural gas bills are approximately 60% for commodity and 40% for delivery. Accordingly, the increases as a percentage of the delivery portion would be about 0.7% for 2008 and 1.3% for 2009.

Bill Impacts for Electric Customers

For residential customers, the estimated aggregate customer bill impacts for the proposed fast track program's direct costs as a percent of total costs would be for residential customers 0.7% upstate and 0.56% downstate in 2008; and 1.1% upstate and .88% downstate in 2009. Similarly for commercial customers the estimated bill impacts

would be approximately 0.66% upstate and 0.52% downstate and, 1.43% upstate and 1.13% downstate in 2009.

The bill impacts for electric customers were estimated as follows. First, with the exception of two programs (the Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment and the WAP portion of the Low Income Residential Energy Efficiency and Weatherization program), the costs of all EPS fast track programs were allocated 100% to electric customers. Residential programs were allocated only to residential customers and commercial and industrial (C&I) programs were allocated only to commercial and industrial customers. Program costs associated with the Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment and the WAP portion of the Low Income Residential Energy Efficiency and Weatherization program were allocated 100% to gas customers.

All of the delivery revenues were totaled (the most recent year available) and an upstate/downstate split was calculated (Con Edison was considered downstate, everyone else was upstate). The respective residential and C&I electric budgets were then allocated to the upstate and downstate regions based on the resulting percentages (residential: 42% downstate, 58% upstate; C&I: 53% downstate, 47% upstate). To determine regional forecast average delivery bill impacts attributable solely to the inclusion of estimated program costs in rates, the budgets for residential and C&I programs for the upstate and downstate regions were divided by their respective delivery revenues. For 2008, this results in forecast average increases of about 1.5% and 2.1% in delivery bills in both regions for residential and C&I customers, respectively. For 2009, average delivery bills in both regions are estimated to increase by 2.4% and 4.8% for residential and C&I customers, respectively.

Total bill impacts by customer type and region were calculated as the product of: 1) the respective forecast average delivery bill impacts for residential and C&I customers in the upstate and downstate regions and 2) the ratio of each respective group's delivery revenues to their total revenues. For downstate customers in 2008, this results in regional forecast average increases of about 0.6% and 0.5% in total bills for residential and C&I

customers, respectively. For upstate customers in 2008, this results in regional forecast average increases of about 0.7% in total bills for both residential and C&I customers. For downstate customers in 2009, regional average total bills are estimated to increase by 0.9% and 1.3% for residential and C&I customers, respectively. For upstate customers in 2009, regional average total bills are estimated to increase by 1.1% and 1.6% for residential and C&I customers, respectively.

It should be noted the some of the cost recoveries for energy efficiency programs at Con Edison that were authorized in Case 04-E-0572 for the Service Territory Wide Program (SWP) being administered by NYSERDA will terminate on March 31, 2008. Those SWP recoveries could amount to $112,000,000 (plus administration and monitoring and evaluation expenses) over the current three year rate period.

3. Evaluation and Reporting

Evaluation and reporting will serve as integral components of the Fast Track program portfolio by providing accountability to ratepayers and regulators, tracking progress toward the EPS goals, evaluating individual program performance, and documenting "lessons learned" to help improve future generations of programs. From a planning perspective, reliable forecasts and validation of achieved energy impacts are critical for estimating future electricity generation, transmission, and distribution requirements.

Evaluation and reporting protocols are currently undergoing a detailed review as part of the EPS Proceeding. Key objectives of this review include establishing consistent evaluation terms and protocols, defining benefit/cost test policy, and establishing a statewide evaluation task force to help guide the evaluation process and coordinate statewide studies. A guiding principle is that the group performing the evaluation should not be the group installing the energy efficiency measure to allow for internal control. A Commission decision on these issues is expected in the future.

For purposes of the fast track programs, Staff proposes a pilot evaluation program that will require that the administrator for each program submit a program proposal that includes a comprehensive evaluation and reporting plan. The details of the plans will

vary with the size, scope, and type of program, but all the plans will be guided by the core principles of providing reliable, timely, and transparent results.

A fast track program evaluation and reporting plan should, at a minimum, address the following:

- Process evaluation - evaluation of program design, delivery, and implementation; identify opportunities for improvement; track progress
- Impact evaluation - quantification of energy and demand savings and identification of other potential impacts, as appropriate (e.g., environmental benefits)
- Net to gross analysis - This is usually represented as a ratio designed to compare the gross savings of a program to the energy savings actually attributable to the program after adjusting for factors such as measurement error, measure installation quality, user behavior, and the actions program participants would have taken absent the program (i.e., free ridership)
- Strategy to provide both long and short-term evaluation. It is critical, especially for new programs, to have an "early warning system" to identify program deficiencies.[15]
- Benefit cost analysis
- Evaluation standards and specifications (e.g., required statistical precision levels for customer surveys)
- Data required to undertake the study
- Database management protocols
- Project timeline
- Budget
- Roles and responsibilities
- Format and timing of periodic program progress reports (These reports will focus on routine data such as dollars spent and measures installed.)
- Evaluation report format
- Other relevant issues (This will vary depending on the program.)

We propose an overall evaluation budget equal to five percent of the total program budget. This level of financial commitment is necessary to accurately track progress toward the EPS goals, rigorously assess the performance of new or expanded program initiatives, and monitor the performance of the various program administrators.

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[15] The early warning system would be developed by the utility and involves tracking and analyzing installation progress in relationship to goals. If achievement levels are lagging, emphasis should be placed on making corrections to improve performance.

An Evaluation and Reporting Task Force (ERTF), a collaborative especially created to work with fast track programs, should be established to oversee the evaluation process. We propose that Staff chair the collaborative and membership will include fast track program administrators, stakeholders (e.g., consumer groups, industry trade associations) and other New York energy related entities (e.g., LIPA, NYPA). Responsibilities of the ERTF will include:

- Review and approve evaluation plans
- Review and approve evaluation related Request for Proposals (RFPs)
- Participate in the contractor selection panel (selected members of ERTF)
- Periodic review of the evaluation process and preliminary data
- Review and approve final evaluation report
- Review of periodic program progress reports
- Provide feedback to Commission and Staff

We recognize that ERTF will have responsibilities that require a significant investment of time and technical resources. To aid in this process, administrators of fast track programs will be required to contribute a small percentage of their program budget (probably less than one percent) to the ERTF. These funds will be made available to the ERTF to hire consultants to assist in assessing the technical merit of the plans and evaluations.

4. Performance Incentives for Utilities

Utilities have stressed that it is essential to provide the investor-owned utilities the opportunity to earn performance-based incentives for implementing energy efficiency programs. The utilities apparently see incentives as a method for aligning their corporate culture, business priorities, and shareholders' financial interests with achieving the goals of energy efficiency programs. Staff agrees that such incentives can play a role in encouraging better programs, but cautioned that they must be carefully balanced so that they are sufficient to encourage high performance, but not so high as to burden ratepayers with unnecessary expenses. The incentive structure must also be easy to understand, administer, and monitor.

Developing an effective incentive program is a complex undertaking. For example, the California Public Utilities Commission recently devoted nearly 18 months to a rulemaking proceeding, culminating in a 227 page decision that provides a new system of incentives and penalties to encourage California's utilities to meet or exceed California's energy saving goals.

Staff recommends that incentive policy be the subject of Commission review in a generic proceeding or as part of the EPS Proceeding. While the analysis of incentive issues conducted by California and other states will inform the review process, the Commission should examine incentive policy as it relates to the program portfolio and circumstances particular to New York. The California Commission had the advantage of examining a long uninterrupted history of large-scale utility administration of energy efficiency programs, but in New York State, the role of the investor-owned utilities in administering energy efficiency programs has diminished sharply since the early 1990s, and currently is limited to only a few programs. It is expected that, at least initially, the focus of utility efforts will be on reinvigorating their energy efficiency program departments and refining their program strategies.

On a pilot basis, Staff proposes an incentive program for the fast track programs implemented by the investor-owned utilities. Highlights of this incentive program include a system that is simple to administer and is designed to focus on encouraging superior performance. Under this plan, investor-owned utilities would have the opportunity to earn rewards when they have secured at least 90 percent of their annual energy savings goal and more generous incentives for performance that exceeds the goal. A negative revenue adjustment applies in cases of substandard performance.

The following is an illustrative matrix for the incentive plan for the two proposed utility-administered programs: Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment and Small Business Direct Installation Program:

Residential Gas Equipment Program	2008	2009
Energy Savings Goal (MMBtu)	478,000	1,435,000
Maximum incentive amount ($ million)	$0.57	$1.6
Maximum negative revenue adj. ($ million)	$0.57	$1.6
Small Commercial and Industrial Program	2008	2009
Energy Savings Goal (GWh)	49.5	148.5
Maximum incentive amount ($ million)	$1.1	$2.2
Maximum negative revenue adj. ($ million)	$1.1	$2.2

Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment

2008 -- An incentive of $4.75 per MMBtu will be paid for each MMBtu above 90 percent of the program goal (438,000 MMBtu), but below 101 percent of the goal (478,000 MMbtu) up to a maximum of $190,000. An incentive of $8.10 per MMBtu will be paid for each MMbtu above 101 percent of the goal (479,000 MMbtu) but below 111 percent of the goal (526,000 MMBtu). The maximum total potential incentive amount for 2008 is $570,000. If less than 60 percent of the MMBtu goal is achieved, a $285,000 negative revenue adjustment will be assessed along with a negative revenue adjustment

of $ 1.00 for each MMBtu not achieved below 60 percent. The maximum negative revenue adjustment will not exceed the maximum potential incentive amount.

2009 -- An incentive of $3.75 per MMbtu will be paid for each MMbtu above 90 percent of the program goal (1,292,000 MMBtu), but below 101 percent (1,435,000 MMBtu) of the goal up to a maximum of $536,000. An incentive of $ 7.45 per MMbtu will be paid for each MMbtu above 101 percent of the goal (1,436,000 MMBtu), but below 111 percent of the goal (1,579,000 MMBtu). The maximum potential total incentive amount for 2009 is $1,600,000. If less than 60 percent of the MMBtu goal is achieved, then an $800,000 negative revenue adjustment will be assessed as well as $1.00 for each MMBtu not achieved below 60 percent. The maximum potential negative revenue adjustment will not exceed the maximum potential incentive amount.

Small Business Direct Installation Program

2008 -- An incentive of $73,400 per GWh will be paid for each GWh above 90 percent of the program goal (45 GWh), but below 101 percent (50 GWh) of the goal up to a maximum of $367,000. An incentive of $183,333 per GWh will be paid for each GWh above 101 percent of the goal (51 GWh), but below 111 percent of the goal (55 GWh). The maximum total incentive amount for 2008 is $1,100,000. If less than 60 percent of the GWh goal is achieved, a $550,000 negative revenue adjustment will be assessed, along with a negative adjustment of $18,965 for each GWh not achieved below 60 percent. The maximum potential negative revenue adjustment will not exceed the maximum potential incentive amount.

2009 -- An incentive of $49,000 per GWh will be paid for each GWh above 90 percent of the program goal (134 GWh), but below 101 percent (149 GWh) of the goal up to a maximum of $733,333. An incentive of $104,760 per GWh will be paid for each GWh above 101 percent of the goal (150 GWh), but below 111 percent of the goal (164 GWh). The maximum total incentive amount for 2008 is $ 2,200,000. If less than 60 percent of the GWh goal is achieved, a $1,200,000 negative revenue adjustment will be assessed along with a negative adjustment of $13,635 for each GWh not achieved below

60 percent. The maximum negative revenue adjustment will not exceed the maximum incentive amount.

5. Low Income and Environmental Justice

This table shows the recommended percentage increase in funding over current program levels in the area of low-income energy efficiency/weatherization programs.

	Current annual budget ($million)	**2008 increase ($million)**	**2008 budget ($million)**	**% 2008 increase over current annual budget**	**2009 increase ($million)**	**2009 Budget ($million)**	**% 2009 increase over current annual budget**
EmPower NY	$11.13	$5.10	$16.23	46%	$10.21	$21.34	92%
WAP	$55.40	$13.75	$69.15	25%	$27.50	$82.90	50%
Total	$66.53	$18.85	$85.38	28%	$37.71	$104.24	57%

15.9% of Staff's recommended 2008 fast track budget and 16.5% of its recommended 2009 fast track budget are assigned to WAP and EmPower New York. Currently, these two programs account for slightly less than 29% of combined SBC/WAP funding.

Aside from the Commission's directive to ensure that low income New Yorkers receive a consideration in program design, there are other good reasons to propose a relatively large share to programs that assist impoverished New Yorkers even though the benefit/cost methodology used by Staff shows a less favorable ratio than many other programs.[16] The costs for energy account for a much higher percentage of the annual

[16] Both EmPower NY and WAP use the same income eligibility criteria as those used for New York's Home Energy Assistance Program (HEAP), which is administered by the NY Office of Temporary and Disability Assistance and provides grants to defray the home energy costs of participants. Assistance is provided to households with incomes at or below the state median household income, adjusted for family size. A four-person household with gross annual income up to $43,308 is eligible during the 2007-2008 program year.

incomes of impoverished New Yorkers than the percent of incomes of better off New Yorkers. A 2002 NYSERDA report[17] estimated that the "energy burden" or the percent of a household's cost for energy as a portion of gross income, ranges between 7% and 29% for low income customers compared to 3% for moderate to high income households. As of this writing, world oil prices are approaching an unprecedented $100 per barrel and the energy burden of all New Yorkers has increased since the 2002 Report. The pressure that all New York families are feeling due to increased costs for necessities such as energy, but also including food, shelter, and health care, are greatest among low income families. Further, as Staff noted in its August 28, 2007 proposal, opportunities for cost-effective energy efficiency and weatherization improvements are common in the buildings in which the estimated 2.2 million low-income families that are eligible for the programs live, but they are less able than others to afford cost-effective investments to reduce their energy costs. In addition, weatherization programs are labor-intensive and thus contribute to improved job opportunities and economic development, which are two of the objectives of the EPS proceeding. The additional funding we proposed for programs to serve low-income customers should help to reduce the waiting lists and unmet demand for these programs.

Regarding environmental justice, it is noted that New York City's dirtiest power plants, which burn oil and tend to be located in poorer neighborhoods and operate just about 100 hours a year during the summer's hottest periods, account for a significant portion of the City's greenhouse gas emissions because they release three to five times more pollution than gas-fueled base units. Staff met with representatives of environmental justice communities in New York City at a Regional Customer Roundtable in this proceeding. Those representatives emphasized the need to eliminate use of these dirty plants. From this perspective, flattening the City's load shape would be a highly desirable achievement. It may be possible to target energy efficiency and demand reduction efforts that can realize that objective. Also, it may be possible to

[17] New York Energy $mart Low-Income Energy Affordability Program, Evaluation and Status Report (July 1998 Through June 2002).

focus programs to those communities most affected by the adverse environmental effects of electricity and natural gas production, delivery, and use. To do so, however, study would be needed to identify the most appropriate strategies and approaches, which would require more time than is available if the fast track programs are to be implemented quickly. The Commission directed that environmental justice be considered in the development of the EPS program. Staff recommends that this issue be fully investigated in the longer-term EPS program planning process.

6. Outreach and Education for Customers

The implementation of fast track programs offers the opportunity to increase New York State customers' awareness of energy efficiency opportunities available to them as well as to inform the public about the EPS target goals and how their actions can contribute to achieving these goals. Rather than wait until the long-term energy efficiency program implementation phase to increase outreach to customers, Staff recommends that the process begin as soon as possible after approval of a portfolio of fast track programs. We believe that DPS, NYSERDA, NYPA, LIPA, DHCR, DASNY, New York City and other municipalities, third party energy efficiency providers, ESCOs, and utilities will all be major participants in communicating about energy efficiency initiatives. To be effective, these outreach efforts should have a consistent message and a common look and feel. We recommend initiating a collaborative planning effort among the groups listed above and other interested parties to determine how to organize and implement this effort within 30 days after a Commission decision on fast track proposals is reached. The parties should determine the budget needed for such a campaign and prepare a plan for how and when the money will be spent. Staff's initial determination is that about $10 million of ratepayer-provided funds will be necessary to implement a comprehensive outreach, education, and marketing campaign during 2008 and 2009. This number, however, needs to be refined as part of development of an outreach plan.

An educational component aimed at school age children should be part of this effort. The major outreach effort is expected to be a statewide multi-media campaign focused on residential and small business customers. In addition, some NYSERDA

programs have been oversubscribed in the past and marketing has been limited since the supply of funds could not meet demand. The parties should look at whether enhanced marketing is appropriate for programs that will be receiving additional funding as a result of the fast track process.

Discussions among the outreach and education collaborative should include developing campaign messages to be sent, deciding on effective media vehicles, determining the timing and coordination of the outreach campaign, and deciding on funding for this effort. Funding levels and coordination of efforts to avoid customer confusion will be key considerations.

7. Training for Energy Efficiency Practitioners

An important element for the success of the overall EPS effort will be the availability of a workforce of trained energy efficiency practitioners adequate to serve all parts of the state. This will take a number of forms, including the need for increased employment in many specialties, including:

- energy audits and analysis of cost-effective efficiency measures for buildings
- building codes enforcement
- installation of energy efficiency measures
- efficiency measurement and analysis
- installation of renewable energy resources that will allow building owners to use less electricity from the grid
- energy efficiency information for school children
- energy efficient design and engineering
- energy efficient building construction and maintenance practices
- careers in energy sustainability fields (e.g., establishment of college majors in energy efficiency/sustainability).

This large undertaking will require lead time to develop curriculum, arrange for training, develop capabilities within colleges to deliver training programs, and arrange for staffing to offer training. To meet these ambitious goals, planning for building the

training capability needs to start now. Staff recommends that collaborative discussions among partners in this effort (e.g., Staff, NYSERDA, community colleges and universities, trade associations, etc.) should begin within 30 days of a Commission decision on the fast track programs.

8. Program Marketing Strategies

Staff's proposed fast track programs for residential customers in existing 1-4 family dwellings support several strategies to influence consumer behavior to reduce energy use, including the use of rebates. The proposed expansion of the existing SBC Home Performance with Energy Star program provides customers a whole-house, all-fuels assessment of energy savings opportunities, and the option of reduced cost financing for measures taken. The Energy Star HVAC and the Gas Equipment programs include rebates to promote decisions to select and properly install high efficiency equipment.

NYSERDA has commented that programs should focus on whole-building assessments and address savings opportunities for all fuels. It claims that opportunities for savings in a building will be lost if rebates are available for specific measure upgrades because a customer may implement only the directly rebated measures. NYSERDA also claims that having programs with whole-house and rebate strategies available in the same market may cause customer confusion and could disrupt the development of the service delivery infrastructure if contractors and customers find it easier to participate in rebate programs and forgo whole-house approaches.

While Staff agrees that comprehensive whole-house work scope would yield more savings per dwelling than installing only selected measures, such as a water heater, we also recognize that the needs and capabilities to make energy efficiency investment decisions differs among customers. Not all customers will be inclined to undertake or be able to afford a whole-house scope of improvements. The initial cost of having an assessment completed also may deter some customers from that approach. Further, rebates can play an essential role in influencing a customer's decision to upgrade to a higher efficiency choice when equipment has to be replaced on an emergency basis and

there is no time for a comprehensive audit. Staff also believes that the availability of rebates can help to attract the attention of the public to thinking about making efficient choices.

Instead of relying on any single approach to influencing consumer choices, Staff proposes that various strategies should be available to meet customer needs in complementary ways to increase overall savings. Consumer education efforts should promote awareness of customer programs in a coordinated fashion so that a customer participating in one program is aware of other program options that may are available.

9. Financing for Energy Efficiency Measures

One of the major barriers that prevent full utilization of energy efficiency programs is customers' inability to raise the up-front costs needed to implement major energy efficiency improvements. For the fast track programs identified here, we recommend use of currently available funding mechanisms, such as buy downs of interest rates, to the extent feasible. We believe that the use of innovative payment approaches should be explored and should not wait for completion of the long-term energy efficiency implementation process.

One concept that should be addressed by the EPS participants is use of a methodology in which the amount of money to be financed would be divided into equal monthly payments over a period of from one to several years with savings resulting from the installation of the energy efficiency measures helping to pay the monthly amount in part or in full. This approach has been used in various jurisdictions and has proven successful. We recommend that Staff convene a meeting with appropriate representatives from the utilities and other interested parties to explore this and other approaches to assist customers that want to undertake relatively large energy efficiency projects.

DASNY, for instance, has proposed an on-bill financing method that would allow it greater access to private capital to finance energy efficiency improvements.[18] Below are the components of the proposal:

[18] This proposal is likely to be refined as discussions about logistical issues continue.

- **Eligible Customers:** This program would provide tax-exempt financing to colleges, hospitals, nursing homes and other not-for-profit and public entities eligible for tax-exempt financing. Entities will be permitted to borrow from DASNY only if certain credit worthiness criteria have been met.

- **Eligible Projects:** This tax-exempt financing would be available to finance energy efficiency projects without regard to who is providing energy efficiency services and/or commodity services to the DASNY customer. Energy efficiency projects would need to achieve savings that exceed debt service by at least XX% in each year of the loan. No project would be financed until an energy audit establishing the estimated savings has been prepared.

- **Customer Repayment Obligation:** The amounts borrowed by DASNY for its customers would be repaid solely by the customer/borrower who benefits from the improvements except in very rare circumstances.

- **Participation Agreement:** DASNY will execute a loan or other agreement with each participating customer/borrower. The utility will not be a party to this agreement between DASNY and its participating customers and the utility will not be a guarantor of the DASNY bonds.

- **On-Bill Financing Mechanism:** Each participating DASNY customer/borrower, pursuant to a tariff, would be obligated to pay a PSC-authorized charge that would appear on the customer's utility bill. The amount of the tariff charge to be collected from each participating customer would be established in advance in a schedule that would be furnished to the utility by DASNY at the time DASNY disburses bond proceeds to its participating customer.

- **Utility Role:** The utility's role would be limited to collecting the PSC authorized charge and then remitting it to DASNY or its designee. The balance sheets of the utilities should not be impacted because the utilities would simply be collecting and remitting a regulatory charge imposed by the PSC.

- **True-Up:** If the participating DASNY customer did not remit the scheduled amount to the utility and the utility exhausts any collection efforts directed by the PSC (which might include the disconnection of utility services), the utility would collect the amount from a true-up tariff imposed upon a class of ratepayers to be determined and authorized by the PSC. The availability of the true-up is essential because it will assist DASNY in providing access to private capital to potential customers who otherwise might not have the financial capacity to undertake energy efficiency improvements.

- **Customer Track Record:** It is extremely unlikely that DASNY's clients will fail to pay the additional charges because:
  - DASNY, in consultation with the utilities, will establish minimum financial criteria for participating customers;
  - DASNY's customers will not want to confront the disruption that would result from the actual or threatened loss of utility service; and
  - Defaults by DASNY's customers are extremely rare.

- **Measurement and Verification:** For measurement and verification purposes, the energy savings achieved by each project would be established through the commissioning process that occurs after completion of the project.

- **Program Benefits:** Issuing bonds at lower tax-exempt interest rates will result in lower cost to customers and lead to energy savings and lower utility bills for participating DASNY customers.

DASNY believes that the bonds secured by the proposed PSC tariff charge will be well received by the market place and that the benefits achieved in terms of enhanced customer access to private capital and reduced subsidies outweigh any incremental costs that may have to be incurred to implement the program or to cover amounts not paid by defaulting customers.

DASNY further believes that: (a) utilities should be able to recover any incremental costs incurred to implement this on-bill financing program through the SBC, a similar charge, or as part of the general utility rates; and (b) if tasked with achieving targeted EPS goals, that utilities should be allowed to count energy savings associated with DASNY-financed projects toward those targets.

Over the years, DASNY has partnered with NYSERDA and NYPA in funding energy efficiency services; implementation of the on-bill proposal would enhance the work of these organizations.

10. Transmission and Distribution Improvements

In its comments on the Preliminary Proposal, the New York Independent System Operator (NYISO) spoke about several topics that do not fit into the fast track framework as programs per se but nevertheless have the potential to contribute to major electricity savings. Work in these areas should begin immediately.

One of these areas is line losses, which refers to the energy that is lost in the delivery process, generally through the dissipation of heat. These losses are generally in the range of 6-8%. According to the NYISO, repairs to and upgrades of local distribution systems can significantly increase the efficiency of the New York State electric system.[19]

The NYISO recommends that the Commission direct New York utilities to: 1) file plans to undertake local distribution system voltage analysis, 2) make equipment upgrades to improve the voltage profiles of their loads, and 3) undertake periodic inspection programs. Staff agrees that improving the operation of both transmission and distribution systems can reduce line losses and lead to more efficient energy usage. Accordingly, Staff endorses the NYISO's recommendations for Commission action, modified to the extent that the analysis should include bulk transmission systems.

Staff applauds the electric utilities for beginning the process of developing a common study protocol. Once this has been agreed upon, Staff urges each electric utilities to begin a study, with results reported to the Commission in early 2008. We recommend that costs associated with the studies should be recovered pursuant to normal ratemaking practices.

11. Advanced Metering/Smart Grid

In its comments on the Preliminary Proposal, the NYISO also spoke of the importance of improved metering in achieving the goals of the EPS proceeding. This sentiment was repeated in a wide range of presentations given at the NYISO Symposium held on June 27, 2007 and the Overview Forum conducted in July 2007, both of which were attended by many parties in the EPS proceeding. As explained in the NYISO comments (page 7) "Coupling new metering technologies with retail pricing structures that coincide with wholesale marketplace pricing intervals could provide end-users with

[19] Reducing line losses has been identified as a way to significantly reduce electricity usage on a national level as well. The Electric Power Research Institute (EPRI) is investigating methods for improving operations of transmission and distribution systems to reduce overall electricity usage levels.

the requisite cost information and incentives to curtail their usage or at least shift usage to less costly periods of the day when their continued usage is not, in their minds, cost effective." The NYISO recognizes that introducing new metering technologies in New York State may take time, but recommends that parties begin immediately to develop standards that will make it possible for technologies to work together optimally and obtain the energy savings that are envisioned.

Staff agrees with the critical importance of developing consistent standards on data formats, common methods for data communications, protocols for data accessibility, and accuracy standards for hardware and firm-ware. A Notice Seeking Comment on proposed standards was issued recently in the Advanced Metering Initiative Proceeding (Cases 00-E-0165 and 02-M-0514). We urge interested parties to submit comments in that proceeding, which are due December 10, 2007.

12. Demand Response

Some parties mentioned the importance of demand response programs as part of the EPS effort. Staff agrees and defers to the efforts of Working Group 4 in the proceeding which has spent several months focusing on these concerns.

13. Enhanced Energy Codes and Standards

In the Preliminary Proposal, we included tables which showed the potential savings available from upgrades to building codes and enhanced appliance standards. In addition, we believe that significant savings can be achieved through strict enforcement of existing and future building code requirements. Based on further analysis and the latest information available, we have updated our projections on the savings that can be obtained through improvements in building codes and appliance standards. This information is included as Attachments 2 and 3.

The impacts from building codes and appliance standards are so significant, and the lead times needed to effect and implement revised requirements are so long, that we recommend that work in this area should begin immediately and should not wait for completion of a long-term planning process review. In our Preliminary Report we recommended an annual budget for these activities of $2.5 million to be split between

NYSERDA and the Department of State. We affirm that recommendation here. These funds should be used to help develop new state equipment efficiency standards, work on implementation of the new state Energy Code that is likely to be approved in 2008, and begin laying the groundwork for an aggressive round of new code enhancements to be adopted in 2010 and take effect in 2011. We believe that DPS staff, working with NYSERDA the Department of State, and other interested parties, should develop strategies for gaining the maximum contributions from codes and standards that can be obtained between now and the end of 2015.

CONCLUSION

For the reasons discussed above, as explained further in the attachments, Staff urges the ALJs to recommend to the Commission implementation of Staff's proposed fast track programs, at suggested funding levels, as well as the other proposed initiatives so that a meaningful part of the EPS goals can be achieved in the next two years.

Respectfully submitted,

EPS STAFF TEAM

Dated: November 26, 2007
Albany, New York

ATTACHMENT I

Detailed Descriptions of Portfolio of Fast Track Programs

1. Residential New Construction – Single and Multi-family Housing (electric and gas)

As Staff explained in its Preliminary Proposal, new construction offers a one-time opportunity to design a building with energy efficiency as an important consideration. The features that are incorporated have the potential to produce continuing energy savings for decades. If this opportunity is missed it will be much more expensive to retrofit the building later.

The existing New York State ENERGY STAR® Homes program is reaching about 11% of new homes with current funding levels. The best programs in the country are achieving participation rates of as high as 60% in the residential new construction market. Staff believes that with additional funding, higher market penetration rates can be achieved in New York State. Obtaining additional energy savings (through both electricity and natural gas usage reductions) from each participating home will also help reach the EPS targets.

In their comments on Staff's fast track proposals, Conservation Services Group (CSG); Northeast Energy Efficiency Partnerships, Inc. (NEEP); Natural Resources Defense Council, Pace Energy Program, and Association for Energy Affordability (NRDC); City of New York; and NYSERDA all identified residential new construction as a program that should receive enhanced funding. Staff recommends that the current NYSERDA programs, New York ENERGY STAR® Labeled Homes and Multi-family New Construction, receive expanded funding. Staff encourages the Long Island Power Authority (LIPA) to likewise increase its support for new construction initiatives.

Description of Fast Track Program: It is desirable to influence construction at the early stages of building planning and design, including decisions about the building envelope, as well as HVAC efficiency, sizing, and ducting to ensure that easily obtained energy efficiency opportunities are not overlooked. Efficient homes can be promoted on the basis of energy cost savings as well as the improved market value of the resulting structure. The purpose of this fast track effort is to increase the market penetration of

existing programs and boost per housing unit energy savings. The incentive structure of the existing NYSERDA program needs to be reviewed to ensure that it can achieve results comparable to those of the best programs of this type.

A short-term program goal is to capture savings in homes being built now by using practices that will later become mandatory with the revision of the state building code for energy efficiency. The goal should be for these homes to use approximately 30% less energy than conventionally built homes. A medium term goal, on which work should begin immediately, is to support revision of the building code to approximate the level of current ENERGY STAR® New Home standards, a building code level that has already been adopted by several Long Island towns. Existing programs will be expanded to include additional gas energy efficiency measures. Features of the program will include:

- Incentives for builders to complete houses that meet ENERGY STAR® standards
- Cooperative marketing of ENERGY STAR® homes with certified ENERGY STAR® builders
- ENERGY STAR® appliances used in new homes
- Training and certificate programs for building designers and builders in cooperation with architects' and builders' associations
- Strategic partnerships with trade associations to help foster market transformation of the new home construction industry
- Use of independent third-party verification by a certified Home Energy Rating System (HERS) rater to ensure that the program complies with program guidelines
- Technical and financial incentives to HERS raters
- A pilot program focused on new apartment buildings.
- Low cost financing (e.g., lower mortgage rate for program participants)
- Incentives for incorporation of proven, cost-effective renewable technologies such as geothermal applications and solar hot water systems.
- Utility incentives to builders/developers, such as reduced connection fees, service upgrades such as buried electric lines, etc.
- Local government incentives such as builder impact fee credits,[1] accelerated permitting and code inspections, and property tax abatement

Enhancements to Current Practice:

- Expanding marketing to builders about the benefits of the program for builders and information on how to participate
- Expanding marketing to home buyers, include co-marketing with participating builders

[1] This could take the form of reduced fees for building permits or expedited treatment for projects that meet a predetermined standard, such as LEED certification or 30% above energy code standards.

- Doing more to promote efficient appliances, lighting, and advanced energy systems (such as solar and geothermal heat pumps) as a means to increase energy savings and customer value
- Evaluating whether the program incentives for customers should be increased in the short-term to capture increased market share
- Exploring new methods to encourage use of energy efficient construction practices such as mortgage interest write-downs, accelerated permitting, or reductions in utility connection or local government fees
- Developing and promoting advanced building strategies with substantially greater energy savings than normal construction. For example, these efforts could target 50% energy savings relative to the base case and take advantage of corresponding federal tax incentives
- Developing and implementing a strategy to transition from a voluntary ENERGY STAR® program to new building codes set at current ENERGY STAR® levels

Lead Administrator: NYSERDA with assistance from: 1) the utilities, in the form of customer referrals, promotion of the HERS scoring system, and distribution of educational materials and
2) the Department of State through assistance with marketing of builder and subcontractor training opportunities and providing contact information to builders as part of its training on building code compliance.

Recommended Budget for 2008 and 2009:	2008	$4.9 million
	2009	$9.5 million

2. Statewide Residential Lighting Program (electric)

Use of compact fluorescent bulbs and associated fixtures, rather than incandescent bulbs, can result in significant electricity savings, which in turn can reduce customer bills. Compact fluorescent and other types of energy efficiency light bulbs and associated fixtures are easy to install measures that can be used to interest customers in energy efficiency opportunities. Currently, sales of compact fluorescent bulbs in New York State are averaging about 1.7 lamps per household per year. Leading programs in the northwest and New England are achieving rates of about 3.0 lamps per household per year. In terms of associated fixtures, the figures are about 0.09 fixtures per household per year in New York. Staff's expanded program assumes that sales should be increased 67% over two years, laying the groundwork for substantial additional increases in market share over the next six years of the EPS programs. The Department of Environmental

Conservation (DEC), CSG, New York City, NYPIRG, and NYSERDA have identified programs of this type as a high priority. Staff encourages LIPA to coordinate its efforts with this program.

Description of Fast Track Program: The Statewide Residential Lighting program will cover residential lighting measures, expanded efforts to increase CFL sales, and a significant emphasis on lighting fixtures that are designed for pin-based compact fluorescent bulbs. Staff believes that accelerated efforts are needed to increase the annual number of CFLs purchased to more than 3.0 per household per year. This could be achieved through increased partnering with manufacturers to provide incentives to retailers for CFL bulbs and fixtures sold. By providing incentives to retailers, they can sell products to consumers for a lower price. The program will also include significantly increased marketing efforts. More retail channels can be developed with this approach since the manufacturers' reach is much broader than other market actors.

Through these efforts to buy down the cost of energy efficient lighting products, customers will receive a discount of approximately $5 to $10 per unit for hardwired indoor or outdoor lighting fixtures, as well as a $10 discount for torchiere floor lamps. Discounts for CFLs will vary depending on the type of bulb. All qualifying products should be ENERGY STAR® labeled. The program has cross-cutting attributes in that some lighting products go to non-residential facilities by virtue of the open market nature of the retail outlet approach.

Enhancements to Current Practice:

- Increase marketing and co-promotions with retail stores.
- Reach all significant retail channels for light bulbs so that an appropriate compact fluorescent bulb and fixture is available when a consumer is shopping for these items
- Provide incentives to retailers for energy efficient lamps and fixtures sold. These could be co-funded by lamp and fixture manufacturers (this strategy has worked well on the west coast).
- Consider use of time-limited coupons or in store rebates for CFL lamp and fixture discounts, especially for smaller (non-chain) retailers.
- Consider development of a lighting catalog, either in hard copy or on-line, that includes hard-to-find fixtures and bulbs. Items in the catalog could have subsidized pricing to make their use especially attractive to customers.
- Consider use of in-store promotions and point-or-purchase information

Lead Administrator: NYSERDA with marketing of programs undertaken by utilities and municipalities

Recommended Budget for 2008 and 2009: 2008 $ 6.8 million
2009 $ 9.7 million

3. Residential ENERGY STAR® HVAC, Including Efficient Gas Equipment (mostly gas, some electric)

As part of the Energy Efficiency Portfolio Standard development process, Staff notes the importance of increasing opportunities for utilities to offer energy efficiency programs directly to customers. Building the infrastructure to undertake such programs, including hiring and training staff, will take time and considerable effort. Staff selected this program to be offered by natural gas utilities that do not already have an appliance rebate program because it has been found to be effective in other jurisdictions and can be implemented quickly. NYSERDA will also play a role by expanding its ENERGY STAR® promotion efforts to include HVAC. As part of its promotional efforts associated with ENERGY STAR® appliances, NYSERDA should also offer upstream incentives for efficient central air conditioning systems (primarily electric but gas air conditioning as well).

The gas utility part of the program will promote purchases by consumers of efficient furnaces, boilers, water heaters, and other gas appliances (e.g., efficient clothes washers for homes with gas hot water). This program focuses on equipment replacement and encourages consumers to purchase ENERGY STAR® or better products when existing equipment fails. Hot water conservation measures, such as low-flow showerheads, will also be promoted. The program includes incentives to pay part of the incremental cost of the more-efficient equipment. When a customer's appliance fails, a decision on what to do to replace it needs to be made quickly, so it is important that customers have easy access to information that will let them know about the energy efficient options available to them and have a simple and timely way to participate. CSG and New York City both recommend a program of this type.

The NYSERDA portion of the program can include broadening and expanding its ENERGY STAR® promotion efforts to include furnaces, boilers, central air conditioners, and water heaters. Current promotion efforts emphasize lighting and appliances so this

will be a significant expansion. In addition, NYSERDA will work with distributors, contractors, and big-box stores to provide upstream incentives for ENERGY STAR® and more efficient equipment, incorporating lessons learned from successful programs offered by LIPA and New Jersey. The central air conditioning effort will focus on downstate, since this is where most air conditioner installations take place. As part of this effort, NYSERDA should explore ways to promote quality installation jobs, again based on lessons from LIPA and New Jersey as well as the Home performance with ENERGY STAR® program. The air conditioning effort was initially a separate program in Staff's Preliminary Report, but since the promotional efforts associated with all ENERGY STAR® appliances should be done jointly, we have now combined the two proposed programs.

Description of Fast Track Program: This program will promote efficient furnaces, boilers, water heaters, central air conditioners, clothes washers (most of their energy use is for hot water), solar hot water technology, and hot water conservation measures. Measures promoted will include efficient gas furnaces and boilers (meeting ENERGY STAR® levels), efficient new water heaters (including efficient tank-type units as well as even more efficient direct-vent, indirect, condensing and instantaneous water heaters), ENERGY STAR® and even more efficient central air conditioners, efficient clothes washers (significantly exceeding ENERGY STAR® requirements)[2], low-flow showerheads, and faucet aerators. Five mechanisms will be used to promote these measures: (1) point-of-sale rebates for retail sale of efficient gas products; (2) upstream incentives for promotion of efficient air conditioners, (3) marketing training for heating contractors and plumbers and rebates to these trade allies for efficient gas equipment they sell; (4) discounted sales of low-flow showerheads, faucet aerators and tank wraps via the Internet and mail order; and possibly (5) additional training, education, and incentives on quality installation of new central air conditioners.

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[2] Incentives will probably not be needed for clothes washers since there is a very good chance that Congress will establish fairly generous federal tax incentives for the most efficient clothes washers. Legislation has passed the House of Representatives and has been reported out of the Senate Finance Committee. House and Senate negotiators are trying to agree on a consensus package that will be voted on before the end of 2007.

Enhancements to Current Practice:

- Set a single set of statewide eligibility and incentive levels. Having different eligibility requirements across utility service territories confuses contractors, store owners, and consumers, making it more difficult to achieve high participation rates.
- Expand ENERGY STAR® promotion efforts to include furnaces, water heaters, and central air conditioners. NYSERDA's marketing efforts should promote all ENERGY STAR® appliances
- Offer incentives for the purchase of high-efficiency furnaces, boilers, furnace fans, central air conditioners, and advanced water heaters (instantaneous, condensing, and solar). The incentives can be made directly to customers or upstream.
- Promote low-flow showerheads and faucet aerators. Utilities can provide coupons with gas bills, give retailer incentives, or provide discounted sales via the internet of mail order.
- Consider ways to promote quality installation of new air conditioners, building on the new Air Conditioning Contractors of American (ACCA) quality installation specification and successful programs offered by LIPA and New Jersey.
- Develop a joint marketing plan involving NYSERDA and gas utilities with input from contractors and consumers so that marketing is complementary and clear to consumers.

Lead Administrator: Gas utilities for the gas equipment portion. NYSERDA for statewide promotion and for the central air conditioner portion. All major gas utilities should meet with Staff and interested parties to collaboratively design a common "look and feel" for promotional materials. Program design should be standardized to the maximum extent feasible.

Recommended Budget for 2008 and 2009:	2008	$ 8.6 million
	2009	$17.3 million

4. Home Performance with ENERGY STAR® (electric and gas)

Home Performance with ENERGY STAR® is designed to implement comprehensive energy efficiency retrofits performed by qualified contractors for one to four family homes. It encourages the adoption of energy-efficient design features and the selection and installation of high efficiency equipment in new construction and substantial renovation projects. The program increases the capacity and expertise of home improvement contractors through training, certification of individual technicians, and accreditation of firms. Included in the comprehensive improvements offered by the

program are building shell measures, heating and cooling measures, electric measures, and health and safety features. Participating homes typically reduce their energy use by 25-30%.

The program uses a whole house approach that gives homeowners recommended energy efficient improvements from participating contracts accredited by the Building Performance Institute. Low interest financing options are available. The program also provides training and financial incentives to contractors who want to receive certification and to purchase diagnostic equipment needed to conduct home performance testing. In their comments on Staff's fast track proposals, CSG and NYSERDA identified this as a program that should receive enhanced funding. Staff encourages LIPA to likewise increase its support for residential retrofits.

Description of Fast Track Program: The current program is budget limited and not heavily promoted. This fast track effort will seek to more than double the size of the program over a two-year period. Promotion, contractor training, and budgets will be supplemented so that the program can increase from an estimated 4,500 homes in 2007 to 10,000 home completions in 2009. As part of this effort, less comprehensive packages of measures will be allowed for homeowners who do not want a "soup to nuts" comprehensive retrofit. The majority of the expansion will take place upstate where colder weather makes the program particularly attractive and where there are more contractors experienced with program procedures. However, the program will continue to devote substantial resources to increasing the number of contractors operating downstate.

Enhancements to Current Practice:

- As noted above, develop streamlined packages to appeal to homeowners who do not want a totally comprehensive package.
- Hold discussions with National Grid/KeySpan on how to best market this program with National Grid/KeySpan's new weatherization programs so that comprehensive packages of measures are encouraged to maximize energy and financial savings.

Lead Administrator: NYSERDA with marketing of programs undertaken by utilities and municipalities. The Department of State should assist with marketing of builder and subcontractor training, in conjunction with their current code training efforts.

Recommended Budget for 2008 and 2009: 2008 $ 8.4 million
2009 $15.6 million

5. Low Income Residential Energy Efficiency and Weatherization (electric and gas)

The New York State Division of Housing and Community Renewal (DHCR) administers a program that uses the federally-funded Weatherization Assistance (WAP) to provide weatherization services to low income customers in all counties in the state. These services are supplemented through a NYSERDA program called EmPower New York that provides weatherization and energy efficiency services coordinated with the WAP. Both programs are delivered by a network of weatherization agencies and private contractors who are accredited by the Building Performance Institute. There is no charge for services to income-eligible participants. The programs are budget limited and, as a result, there are waiting lists for WAP service and only a fraction of the eligible population has been served.

Staff's proposal for an enhanced program will build on the strengths of both the WAP and EmPower New York programs. In their comments on Staff's fast track proposals, CSG, CURRENT Group, LLC (Current), DHCR, NEEP, NRDC, NYPIRG, and NYSERDA all endorsed expanded funding for low income programs.

Description of Fast Track Program: Energy efficiency and weatherization services will be provided to eligible low-income households by expanding two existing programs – Division of Housing and Community Renewal's Weatherization Assistance Program (WAP) and NYSERDA's EmPower New York program. Both programs contract with community groups across the state to provide these services. There is a large overlap in contractors between the two programs and there is coordination in the operation of the programs to promote complementary and timely services to households. Expansion of the WAP program will allow more households to be served, including some households not targeted by EmPower New York. Staff is projecting a 25% increase in year two and likely additional expansion thereafter, with a ramp-up beginning in year one. Expansion of EmPower New York will allow additional services to be provided to WAP participants beyond the WAP services and also targets payment-troubled customers.

Under the WAP program, blower door assisted audits will be used to identify air-sealing opportunities. A whole-house approach will be used with a goal of providing all cost-effective electric and gas energy saving measures, including insulation, weather stripping,

caulking, space and water heating systems repair and replacement, and electric lighting and appliance replacement with ENERGY STAR® fixtures and appliances. The expansion of the WAP program primarily provides natural gas savings, with more limited electric savings. Accordingly, we recommend that the incremental cost for enhancing this program should be funded via gas bills, not electric bills. The EmPower New York program provides additional services not covered by WAP, with an emphasis on measures that save electricity. For the fast track program, the incremental costs for the EmPower New York program should be funded by electric EPS charges.

For both programs, an eligibility criterion will be used that is the same as that used for the current WAP and EmPower New York programs; household income must be at or below 60% of the state median, adjusted for family size. Service will be provided at no cost to participants.

Enhancements to Current Practice:

- NYSERDA, DHCR, DPS Staff, and representatives from the weatherization installation community should meet to identify changes to current practice that would most effectively leverage program funding when additional resources are available for these low income efforts
- Memoranda of Understanding between DPS, the utilities, and DHCR should be developed to specify how the funding process will be administered

Lead Administrators: Division of Housing and Community Renewal and NYSERDA. Utilities will provide referrals of eligible customers to the Empower New York program.

Recommended Budget for 2008 and 2009:

	2008	2009
Empower NY	$5.1 million	$10.2 million
WAP	$13.8 million	$27.5 million

6. Multifamily Building Home Performance with an Emphasis on New York City (electric and gas)

In the past, NYSERDA programs for high rise apartment buildings had a limited impact in addressing energy efficiency opportunities. Barriers, such as split incentive issues, have frustrated attempts to implement widespread programs for high rises. NYSERDA revised its residential multi-family program in May 2007 and participation rates have increased substantially. Further program refinements may be required to

achieve higher market penetration rates similar to those of best practice programs. Preliminary program evaluation results should be available in the first quarter of 2008.

Staff's recommended fast track program expands the new NYSERDA program with an emphasis on coops and condos because this market segment represents a large potential for energy efficiency gains, especially within New York City. Success in reaching this market with significant levels of energy efficiency has proven to be elusive. The transaction costs associated with achieving market success are high, in part because the project approval and decision making processes are cumbersome. Staff recommends that a New York City residential multi-family program design team be formed to develop recommendations for the Commission on how to effectively address this market segment. The design team would develop cost effective recommendations on program elements, incentive levels and criteria, program administration, program goals, and budgets in a concise report within 90 days of a Commission Order. The collaborative design team should include: the City of New York, Con Edison, KeySpan, Staff, NYSERDA, Real Estate Board of New York, and other interested stakeholders, as deemed appropriate.

What is learned with the coop and condo segment of the multi-family housing market can later be used to inform work for all parts of the high-rise apartment marketplace. City of New York and Real Estate Board of New York (REBNY) have identified this type of program as one that should receive enhanced funding.

Description of Fast Track Program: The program will include the following features:

- Incentive payments for specific measures:
  - Common area lighting
  - Efficient air conditioning or combined heat and cooling units
  - Gas heating or water heating efficiency upgrades
  - Recommissioning measures
  - Customized incentive for the installation of a combined heat and power unit, where a minimum of 60% of the waste heat can be utilized, on average, or for solar installations

- Other program features could include:
  - Free low-cost measures at the individual apartment level using a "blitz" approach in which tenants are notified in advance of the date and time of

the program representatives' visit on which services, such as free CFLs and low flow showerheads and faucet aerators.

- For buildings with room air conditioners, bulk purchases of replacement ENERGY STAR® (or even higher efficiency level) air conditioners, provided to tenants at below the bulk purchase cost, provided the tenant trades in a functioning, existing room air conditioner
- Peak load management
- Training and certification opportunities for building managers related to operating building energy systems efficiently
- Outreach efforts for building occupants about energy efficiency
- Lost cost financing for installation of energy efficiency measures
- Coupons for discounts on upgrading appliances to ENERGY STAR® rated appliances with even higher incentives for products meeting "Save More" efficiency levels
- Encouraging use of individual meters so that customers are responsible for paying for the energy they use

- The following participation requirements will apply:

  - For coops and condos, the governing board has the clear authority to execute a project agreement without requiring individual owner consent or voting. Alternatively, a rental property can demonstrate that there is unlikely to be a tenant originated or other legal impediment to project initiation and completion.
  - Payment of significant project assessment costs (e.g. the cost to perform an energy audit) upfront
  - Incentives will initially follow those of the new NYSERDA program, but enhancements are likely as a result of the proposed design collaborative

Enhancements to Current Practice: Staff is not proposing specific enhancements now since the new program is only a few months old. Significant enhancements may be made through the proposed collaborative using feedback from the early 2008 process evaluation and other research, such as focus groups.

Lead Administrators: NYSERDA for the upstate portion of the high rise apartment building program and potentially for downstate programs as well. Staff recommends exploration of the possibility of implementing the condo and coop portion for New York City through the New York City Economic Development Authority (NYCEDC). The NYCEDC currently works with the City's real estate interests and oversees redevelopment projects with the City and, therefore, understands the unique aspects of undertaking such projects in the City. NYSERDA and local utilities could provide support for program planning and implementation. If it is not feasible for NYCEDC to undertake this effort, NYSERDA is likely to continue to be the lead for 2008-2009, while

longer-term decisions will flow out of the long-term planning process for the EPS proceeding.

Recommended Budget for 2008 and 2009: 2008 $ 10.2 million
2009 $ 10.2 million

7. New Commercial Buildings – Whole Building Design (electric and gas)

Energy efficiency programs for commercial customers typically have a much lower average cost per KWH than residential programs and have an enormous potential to result in significant cost-effective energy efficiency savings. Designing new buildings with energy efficiency in mind is a highly effective way to ensure savings that will persist for decades. Furthermore, constructing a building well initially is much less expensive than trying to retrofit changes later. In their comments on fast track proposals, NRDC and New York City endorsed programs of this type. We encourage LIPA to consider comparable program enhancements for Long Island.

NYSERDA's existing High Performance New Construction Program can provide technical assistance and financial incentives for the design and construction of high performance buildings that consume less electricity and gas than conventional designs. The current program is serving about 12% of new commercial floor area. Leading programs in New England have more than a 50% market share. Obviously, there is substantial room for achieving additional energy savings as a result of enhanced funding. Target participants are building owners, architects, and engineering firms. Custom and whole building incentives are available.

Description of Fast Track Program: The goal of the whole building design approach is to create a high-performance energy efficient building by applying an integrated team approach during the project planning, design, and construction phases. One aspect of the program will be to focus on achieving savings of around 30% per building, a level of performance that ASHRAE is targeting for its 2010 model building code. By familiarizing developers, architects, and engineers with this level of performance, New York can be an early adopter of the new ASHRAE standard. Incorporation of renewable technologies, such as geothermal installations, can help achieve the target savings levels.

Enhancements to Current Practice:

- Increase program marketing and outreach dramatically.
- Increase the number of technical assistance providers. NYSERDA has a number of providers under contract, but this number will need to increase substantially to meet increased demand.
- Consider increases to incentive levels. NYSERDA is now paying less than the major New England programs.
- Provide increased compensation to enable building developers, architects, and engineers to participate in the analysis of design options.
- Place more emphasis on a whole building approach since comprehensive approaches can achieve more energy savings, at a lower cost per unit of energy saved.
- Place special emphasis on achieving 30% savings relative to ASHRAE 90.1-2004, since that is the level of savings targeted by ASHRAE 90.1-2010. Promoting this level of efficiency now will make it easier to adopt the new ASHRAE code when it is completed.
- Expand the number of measures promoted by the program to help increase savings per building.
- Review measures in the program periodically and adjust incentives or drop measures as market share grows and free rider levels for specific measures increase

Lead Administrator: NYSERDA with assistance from: 1) the utilities, in the form of customer referrals, promotion of advanced metering, marketing to all new building projects, assistance with energy code training, and post-construction review of energy bills and 2) the Department of State through assistance in updating the Energy Code, administering training, and supervising contract trainers.

Recommended Budget for 2008 and 2009:	2008	$10.4 million
	2009	$26.1 million

8. Small Business Direct Installation Program (electric and gas)

Small businesses provide a significant source of historically untapped potential for cost-effective energy efficiency. This program is designed to overcome the barriers that typically prevent participation by this customer segment, especially financing for energy efficiency projects. The basic program format has demonstrated tremendous success in New England and California when administered by utilities. A powerful element of the program is the availability of on-bill financing for the cost of the measures installed that

exceed incentive payments. New York City endorsed this type of program for fast track implementation.

In its comments on the Preliminary Proposal, NYSERDA described its current use of a Mobile Energy Clinic that provides energy efficiency services to small businesses in Central New York and the Finger Lakes region and suggests that the current NYSERDA program could be expanded statewide or, alternatively, this type of program could be effectively delivered by utilities using statewide protocols. Staff recommends that this program be administered by utilities since they understand the needs of small business customers in the communities they serve.

Description of Fast Track Program: This program will deliver energy efficient hardware retrofits for electric and gas customers, targeting small commercial/industrial customers with monthly peak demand or energy usage less than a designated amount (100 KW is a suggested starting point that may be adjusted based on experience and demand for services). Eligible customers will be reached through a combination of direct outreach by contractors and utility customer representatives. Measures to be addressed will include lighting, selected refrigeration maintenance, gas energy efficiency measures, and other installations deemed to be cost effective. We recommend use of a 70/30 cost split with 70% of the funding provided by the utility and the other 30% being paid by the customer. To the extent feasible, on bill financing should be used to help overcome the barrier of high upfront costs.[3]

The energy efficiency provider will work through a set of approved contractors and third-party implementers who are empowered to promote, enroll, and audit qualified customers, and to install measures at reduced cost to participants. This combination of a dedicated delivery mechanism providing low cost installation and using local contractors and community agencies creates a powerful engine to encourage participation by historically non-participating customers.

Enhancement to Current Practice:

- This would essentially be a new program, building off of NYSERDA's experience with its Mobile Energy Clinic and experience of utilities in other parts of the country that have conducted programs similar to the program described above.

[3] Separate monthly billing could be used while arrangements for on-bill financing are being implemented.

Lead Agency: Utilities. Staff recommends that a program design team consisting of the utilities, NYSERDA, and DPS be formed to develop a specific program implementation plan, principles, and plans to be submitted to the Commission. The program plan should borrow significantly from the successful program that National Grid has implemented in New England for over a decade. The plan should address customer eligibility, incentive levels, contractor selection and administration, bulk equipment purchasing, financing, etc.

Recommended Budget for 2008 and 2009:	2008	$ 11.1 million
	2009	$22.1 million

9. Existing Commercial Buildings (electric and gas)

NYSERDA currently offers the Commercial/Industrial Performance Program and Peak Load Reduction Programs which offer several strategies to provide technical assistance to customers and helps them obtain financial incentives for energy efficiency projects. As part of its Performance Program, NYERDA has a target sector specific "Focus" initiative that seeks high participation in five sectors that account for approximately half of the commercial floor area in the state. These five sectors are: commercial real estate, health case, lodging (hotel/motel), education, and state buildings. In its latest fast track recommendations NYSERDA proposes to combine them into a single program to reduce customer confusion and simplify marketing administration. Staff supports this proposed approach. NYSERDA, City of New York, and NEEP identified this as a program where expanded funding is needed. We encourage LIPA to develop a complementary program for Long Island.

In its Preliminary Report, Staff proposed a program to expand on the current Focus effort. We now update this description to also include a significant expansion of the other current commercial/industrial programs for existing buildings to capture the large energy savings available throughout the commercial sector:

Description of Fast Track Program: To obtain deep market penetration, it can be helpful to determine the trade associations in which key customer segments participate, such as real estate management groups, hospitals, and higher education engineering associations, retailers associations, contractors associations, etc. This allows the program to reach the entire network through a focused effort and also builds credibility and confidence in the programs. Utilities can help recruit participants and stimulate interest in the program.

By concentrating on building sectors that are especially common in New York, much experience can be gained and readily replicated and existing networks within these sectors can be used to help "spread the word". This program will target specific commercial building sectors and will work with leaders and trade associations in each sector to develop appropriate services, incentives, and case studies. This approach is now a cornerstone of several leading commercial sector programs including efforts in the northwest, Rhode Island, and Vermont. NYSERDA has already begun to focus on the school, healthcare, commercial real estate (e.g., rental office buildings), state buildings, and hospitality (hotel/motel) sectors through the Energy Smart Focus program; these are likely targets for an expanded effort.

In their comments on the fast track programs, Multiple Intervenors and NAESCO supported use of standard offer programs. The current C/I Performance Program includes a substantial standard offer program that is one of the leading programs of this type in the U.S. With Staff's proposal to expand funding for this program, the standard offer component of this program will expand.

In addition, we propose to significantly increase resources for the current C/I Performance Program to permit many more buildings to be served. The program is currently budget limited and does little marketing. This fast track program will include significant marketing and a larger budget to accommodate this increased demand. We see electric utilities playing an important role in marketing this program through their customer-service representatives and other means. The utilities should be asked to propose budgets for these services.

Enhancements to Current Practice:

- Substantially expanded networking in the five target sectors to build interest and participation. This should be considered a long-term market transformation effort that will ultimately seek large savings per building in the targeted sectors
- NYSERDA should review lessons on sector targeting from programs in the northwest, California, Vermont, and Rhode Island
- Significant marketing efforts for the C/I Performance Program

Lead Administrators: NYSERDA. Utilities can play a role in promoting the program and offering referrals, distributing bill inserts about program opportunities, and taking advantage of other marketing opportunities. NYPA can expand its collaboration with NYSERDA for eligible public entities and possibilities for partnering with the Dormitory Authority of New York (DASNY) should be explored further. NYSERDA should provide a report to the Commission which summarizes its plans to enhance existing commercial building participation in energy efficiency programs.

Recommended Budget for 2008 and 2009: 2008 $23.5 million
2009 $62.3 million

10. Flex Tech Including Industrial Process Improvements (electric and gas)

Large commercial and industrial applications provide opportunities for large energy efficiency gains with relatively short pay back periods. This program includes two related efforts under the Flex Tech umbrella – one involving expanded resources for services to large commercial facilities (the current focus of the program) and the other involving a major expansion to better address industrial process loads (building on some successful projects in the current program). NYSERDA's nationally recognized Flex Tech Technical Assistance Program provides customers with objective and customized information to facilitate wise energy efficiency, energy procurement, and financing decisions. Participants may use NYSERDA-contracted or customer-selected consultants. The program provides objective analysis of fuel trade-offs and fuel switching options. The resulting product is customized energy efficiency studies targeted at specific customer needs and objectives. NYSERDA and NRDC endorsed use of this type of approach as a fast track program.

Description of Fast Track Program: Flex Tech has been one of the most successful programs under the NYSERDA SBC set of programs. It provides cost-shared technical assessments of specific energy-saving opportunities to large commercial and industrial customers, using expert private consultants. Customers then implement a large proportion of recommendations, 70% at their own costs (the other 30% take advantage of other SBC incentives), resulting in an average cost of saved energy of less than ½ cent per KWh. Given the success to date, this program should be expanded.

Flex Tech is also the primary SBC program that serves industry. The industrial portion of the program should receive extra attention and resources in a program expansion. Industry typically requires "boutique" approaches to energy efficiency. Each production line is different, so a targeted approach is necessary to ensure that all energy efficiency improvement opportunities are identified and addressed. Industrial applications often involve motors and lighting projects. Since the NYSERDA Flex Tech Technical Assistance program has been successful, with large, highly cost-effective savings and good feedback from customers, it should be significantly expanded with a larger budget, more technical assistance providers, and increased outreach.

Enhancements to Current Practice:

- Increase the number of service providers substantially, particularly providers who are experts in particular industrial processes.
- Make incentives available for industrial process improvements. There are currently incentives available for commercial projects through other NYSERDA programs, and many companies implement recommendations without incentives. In the industrial section there are not significant incentives currently available.
- Expand marketing of this program substantially.
- Explore ways to encourage customers that are not required to pay SBC customers to participate in the program.

Lead Administrator: NYSERDA. Utilities can play a role in promoting the program and providing referrals, provide bill inserts about program opportunities, and take advantage of other marketing opportunities. NYPA can expand its collaboration with NYSERDA for projects undertaken for eligible public entities.

Recommended Budget for 2008 and 2009:	2008	$14.4 million
	2009	$28.8 million

ATTACHMENT 2

New York State Code Savings								
	2008	2009	2010	2011	2012	2013	2014	2015
Residential								
New housing units	24,694	24,990	25,290	25,594	25,901	26,212	26,526	26,844
Energy savings per home								
kWh	0	0	0	938	938	938	938	938
Peak MW	0	0	0	0.14	0.14	0.14	0.14	0.14
therms	0	0	0	674	674	674	674	674
% of code savings realized				85%	90%	95%	95%	95%
Savings from current year construction								
GWh				20.4	21.9	23.4	23.6	23.9
Peak MW				3.0	3.2	3.4	3.5	3.5
Billion Btu				1,466	1,571	1,678	1,698	1,719
Savings including earlier construction								
GWh				20	42	66	89	113
Peak MW				3	6	10	13	17
Billion Btu				1,466	3,037	4,716	6,414	8,133
CommercialNew Construction and Major Renovations								
New square feet (millions)	116	118	119	121	122	124	125	127
Energy savings per square foot								
kWh		1.4	1.4	5.5	5.5	5.5	5.5	5.5
Peak MW		0.0003	0.0003	0.0012	0.0012	0.0012	0.0012	0.0012
therms		0.03	0.03	0.14	0.14	0.14	0.14	0.14
% of code savings realized		85%	90%	85%	90%	95%	95%	95%
Savings from current year construction								
GWh		136	146	560	601	643	651	659
Peak MW		31	33	127	137	146	148	150
Billion Btu		347	372	1,423	1,526	1,632	1,653	1,674
Savings including earlier construction								
GWh		136	146	560	1,161	1,804	2,455	3,114

Peak MW		31	33	127	264	410	558	708	
Billion Btu		347	372	1,423	2,948	4,580	6,233	7,907	
Total Savings -- Residential and Commercial									
GWh		136	146	581	1,204	1,869	2,544	3,227	
Peak MW		31	33	130	270	420	571	724	
Billion Btu		347	372	2,889	5,986	9,296	12,647	16,040	
es									
From Residential New Construction program template, see note for row 1 on this template.									
From Residential New Construction program template, see notes for rows 4-6 on this template. These figures are from the impact									
evaluation of the Energy Star New Homes program.									
ACEEE estimate based on very limited data. For example, a 1994 study for PG&E found average energy consumption of new residences									
3-5% below code levels. We believe there were similar findings for California commercial buildings in ~2002 but are trying to track down									
the reference. California has better than average enforcement and we estimate that this level of compliance can be reached in NYS in the									
third year of a new code, with lower compliance in earlier years. We are looking for other studies to cite.									
Row 1 * Row 2 * Row 3 plus a factor to get the units right.									
Row 4 from current year plus Row 5 from previous year.									
From Commercial New Construction program template, see note for row 1 on this template.									
Derived from Commercial New Construction program template, see notes for rows 4-6 on this template. We took the impact evaluation									
results from the NYSERDA commercial new construction program and adjusted for differences in average percentage savings.									
Specifically, the figures used for this analysis are an average of 7% savings from ASHRAE 90.1-2004 (PNNL estimate), 19% savings from									
the current NYSERDA program (Eggers, personal communication) and 30% savings for the 2011 code relative to 90.1-2004 which in turn									
is based on ASHRAE's target for 90.1-2010.									
See note 3.									
Row 6 * Row 7 * Row 8 plus a factor to get the									

units right.							
Row 9 from current year plus Row 10 from previous year.							